

REMARKS

Claims 7-21 are pending in the application. Claims 1-6 were previously canceled. By this amendment, claims 7—10 have been amended, new claims 11—21 have been added, and no claims have been cancelled.

The Abstract and specification have been amended to correct obvious typographical errors. No new matter has been added.

Objections to the Drawings

The drawings have been objected to as failing to show every feature specified in the claims. Specifically, the Office Action asserts the drawings do not show “device identification information is only included in the first and second waveform signals.” While the Applicant disagrees with this assertion, this element has been deleted from amended claim 7 rendering this objection moot.

Rejection of Claim 7 under 35 USC §112

Claim 7 stands rejected under 35 USC 112, first paragraph, as lacking enablement. Before the present amendment, the preamble of claim 7 recited a wireless human input device. The Office Action asserts the wireless human input device was not enabled because the body of the claim recited first and second wireless transmitting units as well as a wireless receiving unit.

In paragraph 13, the specification describes a wireless human input device as including “a plurality of wireless human transmitting units 11 and a wireless human receiving unit 13.” (see also, Abstract, lines 1-2). Thus, the specification does enable the previously pending claim 7.

Nevertheless, in the interest of advancing prosecution, as suggested in the Office Action, claim 7 has been amended to recite a system in the preamble, instead of a wireless human input device. Therefore, withdrawal of this ground for rejection is respectfully requested.

Rejection of Claims 7-10 under 35 USC § 102

The Examiner has rejected Claims 7-10 under 35 USC 102(b) as being anticipated, or in the alternative, as rendered obvious under 35 USC 103(a) by U.S. Patent No. 5,737,107 issued to Umeda.

Umeda discloses a wireless keyboard 1 having a keyboard input section 4 and a trackball 5. (Column 3, lines 38-40). The keyboard sends input data from the trackball 5 to an infrared receiver using a first format (see Figures 3A and 3C) and sends input data from the keyboard input section 4 to the infrared receiver using a second format (see Figures 3B and 3D). (Column 5, lines 57-59, and column 5, lines 44-51). Each of the formats includes a leader code having a low level portion. (see Tables 1 and 2) The low level portion has a duration of 2T in the first format and a duration of 4T in the second format. *Id.* Thus, the format used can be determined by the duration of the low level portion of the leader code (e.g., a duration of 2T versus 4T).

The second format (but not the first format) includes an equipment identifier ID0—ID3 in a portion of the signal other than the leader code. (see Figures 3A and 3B). The equipment identifier ID0—ID3 of the second format is used to identify the type of transmitter for both the first and second formats. (Column 5, lines 59-65 and column 6, lines 6-27). When data is transmitted using the second format, the equipment identifier ID0—ID3 identifies the transmitter (i.e., the keyboard input section 4). *Id.* On the other hand, after data is transmitted using the first format, a second format waveform (e.g., SD17, ID=8) is sent to identify the transmitter (e.g., the trackball 5). *Id.*

Figure 5 provides a method of identifying the type of transmitter. At step S1, the duration of the low level portion of the leader code is determined. At step S2, the duration is used to determine if the signal is in the second format. If the signal is in the first format, it is pointing information and is sent to the host controller at step 4. If the signal is in the second format, at step S3, the equipment identifier is determined. If the equipment identifier identifies the keyboard input section 4 as the transmitter (e.g., ID=4), key codes are sent to the host processor. Otherwise, at step S7 control code processing occurs and the equipment identifier of information sent in the first format is set (e.g., ID=8). Thus, “on the receiver side, the information format is

determined from the information forms the first-format information and the second-format information and the type of the transmitter is recognized by the device identifier contained in the determined second-format information, thereby allowing the information processing based on the recognition.” (Column 8, lines 19-25). Further, “the novel setup can make the most of the advantage of the high information transfer rate by the first-format information while determining the type of the source transmitter without trouble by the device identifier contained in the second-format information.” (Column 8, lines 59-64, emphasis added).

In summary, the low level portion of the leader code may be used to determine which data format is used but not to identify the transmitter. The equipment identifier ID0—ID3 transmitted only in the second format is used for this purpose. The equipment identifier ID0—ID3 is not included in the leader code. The transmitter cannot be identified from a signal in the first format.

Amended independent claim 7 recites a wireless receiving unit configured to receive a first signal and a second signal and determine the first signal was transmitted by a first wireless transmitting unit based on a first wavelength and the second signal was transmitted by a second wireless transmitting unit based on a second wavelength. Each of the first and second signals have both a leading portion and a data portion that is different from the leading portion. The first wavelength is the wavelength of a first waveform signal of the leading portion of the first signal and the second wavelength is the wavelength of a second waveform signal of the leading portion of the second signal. As explained above, Umeda fails to teach or suggest these elements of claim 7. Therefore, claim 7 and claims 8—14 that depend from claim 7 are allowable over Umeda and withdrawal of this ground for rejection is respectfully requested.

New Claims

New claims 11—14 depend from claim 7 and are allowable over Umeda for at least the same reasons (discussed above) that claim 7 is allowable over this reference.

New independent claim 15 recites a system including a wireless receiving unit having means for receiving a first signal and a second signal and means for determining the first signal was transmitted by a first wireless transmitting unit and the second signal was transmitted by a second wireless transmitting unit based on a first wavelength and a second wavelength, the first wavelength being the wavelength of a first waveform signal of a leading portion of the first signal, and the second wavelength being the wavelength of a second waveform signal of a leading portion of the second signal. In both the first and second signals, the leading portion of the signal is different from a data portion. As explained above, Umeda fails to teach or suggest these elements of claim 15. Therefore, claim 15 is believed to be allowable over Umeda.

New independent claim 16 recites a wireless receiving unit for use with a plurality of wireless transmitting units. The wireless receiving unit includes a wireless receiving module configured to receive signals transmitted by the plurality of wireless transmitting units, and an electronic circuit configured to distinguish the signals received from one another based on differences in the wavelengths of waveform signals of leading portions of the received signals. As explained above, Umeda fails to teach or suggest these elements of claim 16. Therefore, claim 16 and claims 17 and 18 that depend from claim 16 are believed to be allowable over Umeda.

New independent claim 19 recites a method that includes receiving a first signal lacking a device identifier from a first wireless transmitting unit and receiving a second signal lacking a device identifier from a second wireless transmitting unit. Then, the method determines the first signal was transmitted by the first wireless transmitting unit and the second signal was transmitted by the second wireless transmitting unit based on a first wavelength of a waveform signal of a leading portion of the first signal and second wavelength of a waveform signal of a leading portion of the second signal. As explained above, Umeda fails to teach or suggest these elements of claim 19. Therefore, claim 19 and claims 20 and 21 that depend from claim 19 are believed to be allowable over Umeda.

Required fees for additional claims are submitted herewith. If additional fees are believed necessary, the Commissioner is authorized to charge any deficiency

or credit any overpayment to Deposit Account No. 04-0258 of Davis Wright Tremaine LLP.

All of the claims remaining in the application are now believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

If questions remain regarding this application, the Examiner is invited to contact the undersigned at (206) 757-8021.

Respectfully submitted,
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